Filed: September 23, 2003

Page : 3 of 11

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

- 1. (Original): A method for treating Alzheimer's disease, the method comprising administering to a patient suffering from Alzheimer's disease a therapeutic agent selected from the group consisting of D-cycloserine and a salt of D-cycloserine, wherein the amount of the therapeutic agent is equivalent to 105-500 mg of D-cycloserine per day, and wherein the therapeutic agent is administered to the patient for at least four weeks.
- 2. (Original): The method of claim 1, wherein the therapeutic agent is selected from the group consisting of a sodium salt, a potassium salt, a calcium salt, a magnesium salt, a zinc salt, and an ammonium salt of D-cycloserine.
- 3. (Original): The method of claim 1, wherein the D-cycloserine or salt of D-cycloserine is administered in a dose equivalent to 125-400 mg of D-cycloserine per day.
- 4. (Original): The method of claim 1, wherein the D-cycloserine or salt of D-cycloserine is administered in a dose equivalent to 150-300 mg of D-cycloserine per day.
- 5. (Original): The method of claim 1, wherein the composition is administered orally, intravenously, trans-mucosally, transdermally, ocularly, buccally, sublingually, intraperitoneally, intrathecally, intramuscularly, by a pulmonary route, or by depot preparation.
- 6. (Original): The method of claim 1, wherein the therapeutic agent is D-cycloserine and is administered for at least 6 weeks.

Filed: September 23, 2003

Page : 4 of 11

7. (Original): The method of claim 1, wherein the therapeutic agent is D-cycloserine and is administered for at least 8 weeks.

- 8. (Original): The method of claim 1, wherein the therapeutic agent is D-cycloserine and is administered for at least 4 months.
- 9. (Original): The method of claim 1, wherein the therapeutic agent is D-cycloserine and is administered for at least 8 months.
- 10. (Original): The method of claim 1, wherein the therapeutic agent is D-cycloserine and is administered for at least 12 months.
- 11. (Original): A method for treating Alzheimer's disease, the method comprising administering to a patient suffering from Alzheimer's disease a therapeutic agent selected from the group consisting of an ester of D-cycloserine, a precursor of D-cycloserine, and alkylated D-cycloserine, wherein the amount of the therapeutic agent is equivalent to 105-500 mg of D-cycloserine per day, and wherein the therapeutic agent is administered to the patient for at least four weeks.
- 12. (Original): The method of claim 11, wherein the therapeutic agent is an ester of D-cycloserine.
- 13. (Original): The method of claim 11, wherein the therapeutic agent is a precursor of D-cycloserine.
- 14. (Original): The method of claim 11, wherein the therapeutic agent is an alkylated D-cycloserine.

Filed: September 23, 2003

Page : 5 of 11

15. (Original): The method of claim 11, wherein the composition is administered orally, intravenously, trans-mucosally, transdermally, ocularly, buccally, sublingually, intraperitoneally, intrathecally, intramuscularly, by a pulmonary route, or by depot preparation.

- 16. (Original): The method of claim 11, wherein the therapeutic agent is administered for at least 6 weeks.
- 17. (Original): The method of claim 11, wherein the therapeutic agent is administered for at least 8 weeks.
- 18. (Original): The method of claim 11, wherein the therapeutic agent is administered for at least 4 months.
- 19. (Original): The method of claim 11, wherein the therapeutic agent is administered for at least 8 months.
- 20. (Original): The method of claim 11, wherein the therapeutic agent is administered for at least 12 months.
- 21. (Original): A method for treating Alzheimer's disease, the method comprising administering to a patient suffering from Alzheimer's disease
- (i) a therapeutically effective amount of a therapeutic agent selected from the group consisting of D-cycloserine and a salt of D-cycloserine; and
 - (ii) an acetylcholine esterase inhibitor.
- 22. (Original): The method of claim 21, wherein the therapeutic agent is D-cycloserine.

Applicant : Tsai *et al.*Serial No. : 10/668,583

Attorney's Docket No.: 13785-745005 / MGH-1271.4 Tsai

Filed: September 23, 2003

Page : 6 of 11

23. (Original): The method of claim 21, wherein the therapeutic agent is selected from the group consisting of a sodium salt, a potassium salt, a calcium salt, a magnesium salt, a zinc salt, and an ammonium salt of D-cycloserine.

- 24. (Original): The method of claim 21, wherein the acetylcholine esterase inhibitor is Donepezil or Tacrine.
- 25. (Currently amended): The method of claim 21, wherein the amount of the therapeutic agent is equivalent to 105-500 mg of D-cycloserine.
- 26. (Original): The method of claim 25, wherein the amount of the therapeutic agent is equivalent to 125-400 mg of D-cycloserine per day.
- 27. (Original): The method of claim 26, wherein the amount of the therapeutic agent is equivalent to 150-300 mg of D-cycloserine per day.
- 28. (Original): The method of claim 21, wherein the therapeutic agent and the acetylcholine esterase inhibitor are administered orally, intravenously, trans-mucosally, transdermally, ocularly, buccally, sublingually, intraperitoneally, intrathecally, intramuscularly, by a pulmonary route, or by depot preparation.
- 29. (Original): A method for treating Alzheimer's disease, the method comprising administering to a patient suffering from Alzheimer's disease
- (i) a therapeutically effective amount of a therapeutic agent selected from the group consisting of an ester of D-cycloserine, a precursor of D-cycloserine, and alkylated D-cycloserine; and
 - (ii) an acetylcholine esterase inhibitor.

Applicant : Tsai *et al.*Serial No. : 10/668,583

Attorney's Docket No.: 13785-745005 / MGH-1271.4 Tsai

Filed: September 23, 2003

Page : 7 of 11

30. (Original): The method of claim 29, wherein the therapeutic agent is an ester of D-cycloserine having an ester group with 1-20 carbon atoms.

- 31. (Original): The method of claim 29, wherein the therapeutic agent is an alkylated D-cycloserine having an alkyl group with 1-20 carbon atoms.
- 32. (Original): The method of claim 29, wherein the therapeutic agent is a precursor of D-cycloserine.
- 33. (Original): The method of claim 29, wherein the acetylcholine esterase inhibitor is Donepezil or Tacrine.
- 34. (Original): The method of claim 29, wherein the amount of the therapeutic agent is equivalent to 105-500 mg of D-cycloserine.
- 35. (Original): The method of claim 34, wherein the amount of the therapeutic agent is equivalent to 125-400 mg of D-cycloserine per day.
- 36. (Original): The method of claim 35, wherein the amount of the therapeutic agent is equivalent to 150-300 mg of D-cycloserine per day.
- 37. (Currently amended): The method of claim 29, wherein the therapeutic agents agent and the acetylcholine esterase inhibitor are administered orally, intravenously, transmucosally, transdermally, ocularly, buccally, sublingually, intraperitoneally, intrathecally, intramuscularly, by a pulmonary route, or by depot preparation.
- 38. (Original): A method for treating Alzheimer's disease, the method comprising administering to a patient diagnosed as suffering from Alzheimer's disease

Filed: September 23, 2003

Page : 8 of 11

(i) a first therapeutic agent selected from the group consisting of D-cycloserine and a salt of D-cycloserine; and

(ii) a second therapeutic agent selected from the group consisting of antipsychotics, antidepressants, psychostimulants, and Alzheimer's disease therapeutics;

wherein the therapeutic agent is equivalent to 105-500 mg of D-cycloserine.

- 39. (Original): A method for treating Alzheimer's disease, the method comprising administering to a patient diagnosed as suffering from Alzheimer's disease
- (i) a first therapeutic agent selected from the group consisting of an ester of D-cycloserine, a precursor of D-cycloserine, and alkylated D-cycloserine; and
- (ii) a second therapeutic agent selected from the group consisting of antipsychotics, antidepressants, psychostimulants, and Alzheimer's disease therapeutics;

wherein the first therapeutic agent is in an amount equivalent to 105-500 mg of D-cycloserine.

- 40. (Original): A pharmaceutical composition comprising:
- (i) a therapeutically effective amount of a therapeutic agent selected from the group consisting of D-cycloserine and a salt of D-cycloserine; and
 - (ii) an acetylcholine esterase inhibitor.
- 41. (Currently amended): The <u>method_composition</u> of claim 40, wherein the therapeutic agent is equivalent to 105-500 mg of D-cycloserine.
- 42. (Original): The composition of claim 40, wherein the therapeutic agent is selected from the group consisting of a sodium salt, a potassium salt, a calcium salt, a magnesium salt, a zinc salt, and an ammonium salt of D-cycloserine.

Filed: September 23, 2003

Page : 9 of 11

43. (Original): The composition of claim 40, wherein acetylcholine esterase inhibitor is Donepezil or Tacrine.

- 44. (Original): A pharmaceutical composition comprising:
- (i) a therapeutically effective amount of a therapeutic agent selected from the group consisting of an ester of D-cycloserine, a precursor of D-cycloserine, and alkylated D-cycloserine; and
 - (ii) an acetylcholine esterase inhibitor.
- 45. (Currently amended): The <u>method_composition</u> of claim 44, wherein the amount of the therapeutic agent is equivalent to 105-500 mg of D-cycloserine.
- 46. (Original): The composition of claim 44, wherein the acetylcholine esterase inhibitor is Donepezil or Tacrine.
 - 47. (Original): A pharmaceutical composition comprising:
- (i) a first therapeutic agent selected from the group consisting of D-cycloserine and a salt of D-cycloserine; and
- (ii) a second therapeutic agent selected from the group consisting of antipsychotics, antidepressants, psychostimulants, and Alzheimer's disease therapeutics;

wherein the therapeutic agent is in an amount equivalent to 105-500 mg of D-cycloserine.

- 48. (Original): A pharmaceutical composition comprising:
- (i) a first therapeutic agent selected from the group consisting of an ester of D-cycloserine, a precursor of D-cycloserine, and alkylated D-cycloserine; and
- (ii) a second therapeutic agent selected from the group consisting of antipsychotics, antidepressants, psychostimulants, and Alzheimer's disease therapeutics;

wherein the therapeutic agent is in an amount equivalent to 105-500 mg of D-cycloserine.